Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

9
096

LIBRARY
RECEIVED
★ SEP 19 1941 ★
U. S. Department of Agriculture

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

GPO
SEP 6 1941

Not for publication without
prior consent of this division

REPORT FOR THE WEEK ENDING SEPTEMBER 6, 1941

HAVRE:

Unsettled weather with cool damp mornings, sunless days and little wind movement characterized the weather of the week. Threshing out-of-doors was delayed nearly the whole week, being at last finished on Friday. Nearly all of the indoor threshing of nurseries, grasses and other seedhouse work was completed.

Corn picking began in the rotations and in the corn nursery on Thursday. Exceptionally good yields of many of the hybrids were harvested. Yields of grain on the rotations with the exception of those harvested from the MC continuous methods, proved disappointing. As little as forty pounds of ear corn per plot was harvested from several of the fall plowed plots. The corn obtained seems to be relatively mature in most instances.

Leveling operations were begun on one of the irrigated fields which was crowned earlier in the season. Considerable difficulty is being experienced, owing to the heavy residue of roots and other debris remaining on the surface.

Winter wheat planted in the date of seeding test, comparing the ordinary furrow drill with the deep furrow press drill, has emerged very uneven, showing no advantage in stand for the press drill over the ordinary.

The expected flights of cut worm moths have not materialized, only a few scattered individuals having been observed on any single occasion.

Maximum temperature, 79°; minimum, 38°; precipitation, 0.06 inch.

JUDITH BASIN:

The week has been rather cool and only during the final days was the weather favorable enough to begin threshing again.

The steers on the native grass pasture were weighed Thursday, Friday and Saturday for their final weights, as all of the steers which were in the Summer Pasture Experiment are to be shipped on Monday. Again this season the native grass steers had sufficient food remaining in their pastures to continue making low gains.

The total precipitation recorded in August was 2.31 inches, compared to the station average of 1.44 inches. The August mean temperature of 65 degrees was but one degree warmer than the station mean for that month. The average daily wind velocity of 6.5 miles per hour was somewhat higher than normal.

To date the station's average precipitation equals that for the growing season, April 1 to September 30.

Maximum temperature, 74°; minimum, 45°; precipitation, 0.14 inch.

HUNTLEY:

Cooler weather and two fairly good showers during the week benefited grasslands and alfalfa. Crested wheatgrass is making a nice growth that would supply light grazing on most plots and pastures. The moisture received has not yet been sufficient to wet down stubble land and be an aid to fall plowing, but it has started considerable weed growth and volunteer grain which could be destroyed with a minimum of tillage.

Field work has consisted of cleanup jobs and repair work. Fenceposts have been replaced, gates rehung and wire repaired. Weeds have been raked and burned and fallows have been gone over with a hoe to remove scattered weeds. Hogs on the sorgo-soybean pasture were weighed and the experiment was closed for the season. The corn yield on the final plot of the pasture series was too light to warrant hogging off so the crop was cut.

Maximum temperature, 80°; minimum, 43°; precipitation, 0.64 inch.

SHERIDAN:

Two heavy showers finally passed over the station the first of the week, and there were lighter ones again at the last. Temperatures were moderate over the entire week. Only rough fallow lying on no greater slope than the rotation field, and clumps about the buildings, were wet in proportion to the amount of water that fell on August 30th, a large part of it being lost by run-off. Moisture penetration on the station was only about three inches on stubble, except in the cracks. Washing was bad in the field south of the highway and in the road leading to the highway, but practically none was apparent in the rotation field. Ranchers near the station claim that their soil is wet much deeper, and a considerable acreage of winter wheat has been sown since the rain.

Only miscellaneous work, such as cleaning grain, cleaning up the corral, pouring a foundation for the corn crib, and some tillage for fall seedings was done.

Maximum temperature, 85°; minimum, 45°; precipitation, 1.62 inches.

DICKINSON:

Cool, pleasant weather prevailed most of the week, but showers delayed threshing in the district. A good deal of shocked grain still remains to be threshed in some communities. The rain was of benefit to corn and sorghums. Pastures are greening and a good growth is coming on grasses cut for hay or seed. Stubble fields are greening up rapidly where oats or barley was shattered by the hail.

Corn on most of the rotation and tillage plots was cut September 5 and 6. Yields of grain should be above average but the corn is short. Corn and sorgo in the district ~~where~~ not damaged by hail are producing heavy yields this year.

Maximum temperature, 88°; minimum, 40°; precipitation, 0.59 inch. Precipitation to date in 1941 is 24.2 inches. Normal precipitation to date is 12.5 inches.

MANDAN:

Arboriculture: The only field work done during the week has been the collection of blue spruce cones the last two days. Dr. Curtis May of Morristown, New Jersey spent half a day at the station examining Chinese elm hybrids which may be suitable for investigational work in connection with Dutch elm disease.

Horticulture: Picking of late maturing varieties of fruits continued throughout the week, and it is possible that all picking will be completed within the next two weeks. Apples and crabs are yielding a heavier crop than last year while plums are lighter. The new variety "Philbrick" yielded a good crop of attractive appearing yellow apples. Wealthy is bearing a better crop than in any previous year. Robin, Dawn, Hyslop and Olga crabs were loaded. A large number of trees in the breeding blocks have been marked for pulling, due to weakness of the tree or inferior fruit. This will give the remaining trees a better chance. The thinning-out of trees in the closely planted "1919 Combination fruit patch" some years back is now showing results in that the size and quality of the fruit in this planting were about normal this year, whereas it used to be very inferior under crowded conditions.

Agronomy: The third and last duckfooting of fallow this season was made this week. Large numbers of purslane and some volunteer grain were in evidence. Fall plowing is under way, and although the ground is comparatively dry, a fair job is being done. Russian wild-rye seeded August 20 on the roads in the main field, is just coming up.

Total precipitation up to August 31 this year was 14.23 inches; normal for same period is 13.08 inches.

Maximum temperature, 89°; minimum, 46°; precipitation, 0.38 inch.

ARCHER:

The weather during the week was dry with cool nights and mild day temperatures. The 1941 plant growth has about reached a standstill. Corn in the rotation plots is maturing and the potato vines appear to have about finished their season's growth. Beans and sorghums are still in good condition. Buffalo and grama grasses are curing.

Station activities consisted of seeding winter cereals in the experimental field, threshing the greater part of the spring wheat from the rotation plots, and storing the winter's supply of coal.

Maximum temperature, 86°; minimum, 43°; precipitation, 0.0 inch.

NORTH PLATTE:

Although the weather threatened rain a few days during the week, little more than a trace of precipitation was recorded. All of the corn plots have been harvested and although the dry weather of August dried the crop prematurely, yields of forage and grain will be

better than at any time in the past 6 years. The sorghums are ripening and harvesting will begin in a few days. At the main station, corn is now being cut for the dairy silo. Several hybrids were planted for silage and yields are ranging from 15 to over 20 tons per acre.

Maximum temperature, 95°; minimum, 44°; precipitation, 0.02 inch.

AKRON:

Threatening weather early in the week produced consequential rain further east over Yuma County, according to reports. The station still has prospects of getting winter wheat to emerge, especially on fallow. A good rain in this region, however, would be very welcome.

The migrated-in grasshoppers have produced a crop of offspring which promise to be troublesome yet this fall. Poison bait was scattered this week over the winter wheat nursery ground, mainly as a precaution, and over the last planting of the grain sorghums where they were especially concentrated.

Nearly all rotation corn on stubble land was harvested. Also 6 acres of forage sorghum across the railroad and several isolated plots of Kursk millet for feed. Weeds about the station fence line were mowed. Some time was spent on preliminary work in establishing the cattle feeding pens.

D. W. Robertson, J. B. Kuska and H. J. Haas visited Monday. Wayne Austin and M. S. McMurtrey of the Lincoln Staff of the Soil Conservation Service made a short stop Friday.

Maximum temperature, 90°; minimum, 43°; precipitation, 0.03 inch.

COLBY:

This has been another dry week. Only very light showers were received Monday night and Tuesday afternoon in this vicinity, but torrential rains fell in several localities in this section of the State. The temperatures ranged from hot to very chilly. Wednesday was the hottest day of the year with a maximum temperature of 100°, the only time the temperature has gone to 100 this year. Over night the temperature dropped 49° to a low of 51°. It was rather windy the first three days of the month, with some soil blowing on bare fields where the crust had not been broken.

All crops are beginning to dry up. Some of the milo plots, particularly M.C. B and the green manure plots, are burning rather badly. The other sorghum plots and the corn plots have not suffered seriously as yet. Winter wheat seeding is in process, but many farmers are not hurrying, hoping that it will rain.

Dr. Hildreth and Dr. Benedict of the Cheyenne Horticultural Field Station visited the station this forenoon.

Precipitation for August, 1941, 0.77; 54-year average 2.22 inches. Precipitation, January 1 to August 31, 1941, 25.68 inches; 54-year average, 13.93 inches.

Maximum temperature, 100°; minimum, 49°; precipitation, 0.13 inch.

HAYS:

The weather has been varied but generally warm and partly cloudy. The temperature has ranged from 56 to 98 degrees. No rain has occurred since September 2. Most of the heavy precipitation that has been causing the floods reported in Kansas missed Hays.

The heavy growth of row and feed crops stimulated by the generous rains during past weeks is now rapidly consuming the moisture in the soil and has already nearly exhausted the supply of easily available moisture. The crops are beginning to wilt. The soil from which a growth of sorgo was removed yesterday for a hay crop was found to be so dry and hard at the surface it was almost impossible to penetrate it with a heavily weighted disk.

The sorghums are all headed and looking very good. It seems like it has been years since such a heavy stover growth has been made on the plots. Pink kafir is 6 feet high, early sumac averages 5 feet and Sudan grass from 5 to 6 feet high. The growth of sumac and Sudan is very thick and heavy. These crops were harvested September 5 for hay.

Alfalfa seeded in the spring has not made a very heavy or tall growth but the stand is excellent and it generally looks very good.

The buffalo grass sown on the plots in the spring now covers 75% of the surface of the ground.

Maximum temperature, 98°; minimum, 56°; precipitation, 0.57 inch.

GARDEN CITY:

No precipitation fell during the week and the temperatures in general were rather high, accompanied by wind. This hastened the ripening of sorghums and many of the plots are fairly well colored. Wheat seeding in this area is in progress, however, a strip north to Oakley showed only a few good seedbeds for wheat. Many of the fields appeared to have been worked recently with a one-way and were loose while others were quite weedy. Volunteer wheat is making a rank growth.

Field work consisted of Noble cultivating wheat stubble plots on the Basin Lister Project to destroy volunteer, taking soil moisture samples and hoeing weeds.

A. C. Hildreth from the Cheyenne Horticultural Field Station was a station visitor.

Maximum temperature, 98°; minimum, 51°; precipitation, 0.0.inch.

TUCUMCARI:

Temperatures are as high as in July or August and crops, while maturing normally, show that additional rain will soon be needed. Abundant early moisture caused roots to grow very shallow, while vegetative growth was heavy. Soil moisture is still favorable below the

third foot, but sorghums do not seem able to pick it up as fast as necessary.

Station work included harvest of cowpeas, beans and Sudan grass, broomcorn pulling and completion of grape and fruit picking.

Ranges are maturing a wonderful crop of native grasses. Row crops can produce excellent yields with another good rain, but even without rain a fair crop is assured.

Maximum temperature, 94°; minimum, 53°; precipitation, 0.0 inch.

BIG SPRING:

The weather was warm and dry during the week, in fact it was as warm as at any time during the summer. Crops are growing well and maturing rapidly. Cotton is starting to open and about a dozen bales have been ginned in the county up to date. A new infestation of cotton leaf worms in this section is causing the farmers considerable trouble in trying to control them. Spraying with the usual insecticides does not seem to kill the worms as it should. The Station cotton has been sprayed twice during the past 10 days, and there are still worms left.

Station work during the past week has consisted mainly of cutting increase sumac and filling the trench silo for the cattle feeding work. One hundred thirty-four tons of ensilage was put in the trench. Other work consisted of seeding the orchard, roadways and evergreen planting to control soil blowing.

Station visitors included E. L. Johnson of the Woodward Station and D. L. Jones and R. E. Karper of the Lubbock Station.

WOODWARD:

Strong southerly winds occurred on several days at the close of the week, the temperature being 6° above normal. Sporadic thunderstorms caused heavy precipitation in some localities. Rainfall at the station totaled only 0.45 inch. However, that amount appeared beneficial to vegetation in general.

In the tillage method field a number of plots were cultivated to control volunteer wheat and weeds. Switch grass and sand bluestem irrigated increase seed were harvested with a binder. The foundation for the seed storage barn was completed and erection of the building will begin next week. The Sudan grass cover crop at the range unit is being mowed a second time to prevent seed production.

An inventory of all horticultural nursery material for a complete alphabetical list of species has been started. Campus maintenance, irrigation of lawns, nurseries and seedbeds were the principal activities in this project. The season's work in the tomato breeding project is drawing to a close, some very interesting data having been

obtained on the inheritance of setting of fruit. Dr. A. C. Hildreth of Cheyenne inspected the station on August 4.

Other visitors included Dr. John H. Martin, Washington, Dr. C. B. Cross, Stillwater, and a group of Oklahoma nurserymen.

Maximum temperature, 98°; minimum, 64°; precipitation, 0.45 inch.

LAWTON: Report for month of August

August temperatures were comparatively mild, the maxima ranging from 78 to 102, with only 6 days of 100 or more during the month. The minimum for the month was 64, and the wind velocity was slightly below the long-time average. Precipitation throughout the month consisted of widely scattered rains that were very sharply localized. Station records include 8 showers that totaled 1.17 inches, leaving a monthly deficiency of 1.62 inches. July and August combined were 2.58 inches below normal.

In spite of the lack of rain, crop growth was not punished. Kafir, sumac and feterita in the rotation plots produced good crops of grain, but foliage on kafir burned rather severely just before harvest, August 20 to August 26.

An extremely heavy infestation of stink-bugs, tentatively identified as Rice stink-bugs, occurred in the sorghums this year. Practically every head contained from 50 to 100 stinkbugs. Rotation plots of kafir, feterita and sorgo, planted April 25 to May 9, escaped with only negligible injury. Adult bugs were leaving the crops at harvest time, August 20 to 26. Apparently the blooming period was passed when the infestation occurred. In the chinch bug sorghum breeding project and the standard variety tests, planted May 29 and 31, most of the sorghum varieties strains and selections suffered extreme injury in the bloom state of development, and injury to grain production was intense. Common darso, many of the whiteseeded darso, Hybrids, Reed, Texas Blackhull, Hydro, Club kafir, Hegari and Norkan all showed severe injury. In some instances the heads are almost wholly sterile and where fertilization did occur the small heads contain shriveled and shrunken grain. Early-maturing varieties such as Kafirita, Early Hegari and Cache feterita escaped with but little injury. This is the first time that such sorghum injury has been recorded in this vicinity. Similar complaint has been received from one farm southeast of Lawton. Charcoal rot is present only to a small extent this year. Root development is not normal but a definite reason for such restriction cannot be given as yet. Late planting and favorable growth conditions have resulted in a late harvest, only the earlier things being mature by September 1.

The 1941 cotton production in this part of the State will be very spotted. Much of it was planted very late. Flea hoppers and boll weevil have taken a heavy toll in many fields. Plant growth of seedings made at the normal time is rank and leaf worms have become an acute problem in many places. Good stands were secured on station plots of cotton at the normal date of planting. Boll weevils have been a serious menace to plots in Field A and are responsible for a heavy reduction in yield. In field B the infestation has been much lighter and good yields are evident. The fiber appears to be of good strength, quality and length. An appreciable percentage of mature open bolls were showing by the first of September.

Numerous officials, Federal and State, visited the station during the month.

LAWTON: Report for week ending September 6

A much needed rain of 0.79 inch, 0.60 inch falling within 15 minutes, was recorded on September 4. This rain was accompanied by a hard southwest wind that caused considerable root lodging in the sorghums and broke tree limbs. Minimum and maximum temperatures for the week were 68 to 99. The wind velocity during most days was higher than average.

About 60 plots of sorghums were headed during the week. Most of the remaining plots about 200, will be harvested with the binder and shocked. Seed selections from a majority of the plots that are ripe and from most of the nursery seedings, have been made.

Cotton continues to open normally and leaf worm complaint continues to come in. Plans are being made in Tillman county which joins Comanche on the southwest, to dust with airplanes to control the damage on late planted cotton. There is no damage of this sort on the station as yet. Defoliation of cotton planted at the normal planting date would not be very injurious now.

Hybrid corn tests were shucked and the ears scored for worm injury and quality in general. Some tillage in preparation of seed beds for wheat was also accomplished following the rain.

John H. Martin and J. B. Sieglinger visited the station in the interests of sorghum experiments.

- - - - - - - - - - - - - - - - - -

NOTE:

Mr. J. T. Sarvis, who has been employed by this Division since April 1, 1913 has been retired for disability. Mr. Sarvis was located at Ardmore, S. Dak., in 1913 and 1914. Since April 1, 1915 he has been in charge of the agronomy and grazing projects at Mandan. His address is now, Highmore, S. Dak.

96

LIBRARY
RECEIVED
★ SEP 30 1941 ★
U. S. Department of Agriculture

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

GPO

SEP 13 1941

Not for publication without
prior consent of this division

REPORT FOR THE WEEK ENDING SEPTEMBER 13, 1941

HAVRE

The weather has been unsettled during the past week with a heavy rain amounting to 1.90 inches on September 6, which was followed by mostly cloudy weather the balance of the week. Another good shower of 0.38 inch was received on Thursday night. Moisture for September to date is twice the normal amount for the entire month.

Corn picking was completed in the rotations, but rains have hindered the picking in the variety tests which are only about one-half completed. Fall plowing in the D.L.A. fields as well as in the irrigated farm fields has been done when conditions permitted. Some threshing was done of quads of wheat in the cooperative tillage project with the Soil Conservation Service, being conducted at this station, Culbertson and Dutton.

The majority of time has been spent on physical plant improvement.

Conditions are ideal for the germination of winter wheat. This will have a tendency to increase the amount of winter wheat seeded in this area. Only about 5000 acres was seeded in Hill County two years ago. However, this year about 60,000 acres was harvested, and with ideal seeding conditions this fall it looks as though this County will have better than 150,000 acres in winter wheat.

Maximum temperature, 70°; minimum, 35°; precipitation, 2.31 inches.

JUDITH BASIN:

Weather permitted threshing on only one half day during the week. Temperatures were low with all but one minimum in the thirties. Snow flurries occurred early in the week and the mountains were capped with snow.

The Hughes steers loaned for the Summer Pasture Trial were returned on Monday and averaged about 735 pounds each.

Other than threshing the station work consisted of cleaning seed, calibrating a drill for some forage plantings, pouring concrete and report work.

September is the third month to exceed the average monthly rainfall (1.42 inches.)

Maximum temperature, 67°; minimum, 34°; precipitation, 1.79 inches.

HUNTLEY:

A gentle rain extending over a period of 30 hours early in the week soaked crop lands and pastures to the extent that no field work was possible until Friday. The total amount received was 3.40 inches, which was almost 3 times the average for September and which has been exceeded only once (1923) in the history of the station. This rain should facilitate fall plowing and provide moisture for prompt germination of fall grains. Crested wheatgrass has made a good growth

Temperatures dropped abruptly following the storm and damage to garden crops by frost was reported from nearby localities, but frost was not recorded at the station.

Field work has consisted principally of clean-up jobs, removing end fences on the pastures to permit tillage of the plots, and taking down catch-pens, shelters and waterers for winter storage.

Maximum temperature, 75°; minimum, 34°; precipitation, 3.40 inches.

DICKINSON:

Rain on Saturday night and all day Sunday, September 7, amounted to 2.06 inches. So far rain in September totals 3.20 inches. This amount has been exceeded only twice in the 49 years of record and is the most recorded since 1923. Precipitation in 1941 has been boosted to 26.82 inches. This exceeds the previous high in 1914 by more than 4 inches.

Grasses and stubble fields have greened up rapidly since the rain. With the water now in the soil, pastures should remain green until a heavy freeze. The light frost recorded on the morning of September 9 froze tender garden plants but did not affect grasses or other hardy vegetation.

Winter wheat and winter rye were planted on the rotations September 10.

The rest of the corn on the rotations and most of the increase corn was harvested. During the rainy spell a fairly strong wind caused much of the corn and sorgo to lean over so badly that some plots and fields can be cut only one way with the corn binder.

A little plowing has been done in the locality since the rain.

Maximum temperature, 82°; minimum, 29°; precipitation, 2.62 inches.

SHERIDAN:

Rain the first of the week finally wet stubble land to a depth sufficient for good plowing with the moldboard plow, for the first time in several years this early in the season. Temperatures generally were low, with but one really warm day. The average for the week was one of the lowest yet recorded here at this time of the season.

Only miscellaneous work could be done the first of the week. Later the preparation of plots for fall seeding was completed, and the seeding done, with the exception of Rotation 37, where potatoes still occupy the land, and the stubbled plots in Rotation 571-3. A thick mat of downy bromegrass emerged on this plot and another, and later tillage will be necessary in an attempt to kill the growth before seeding. Fall plowing in the rotations is in progress, and crested wheatgrass is being sown in Pasture No. 1 in an attempt to thicken the stand. Hybrid corn was picked. The corn crib was moved to the new foundation.

Maximum temperature, 85°; minimum, 36°; precipitation, 1.35 inches.

ARCHER:

A rain totaling 0.50 inch occurred during the night of September 7. This was followed by the first killing frost during the night of September 8. The leaves of the corn, sorghums and squash and the tops of the bean and tomato vines were frozen.

Station activities consisted of seeding winter wheat in the forage field, cutting corn in the rotation plots, and making the early grass seedings in the methods and dates of seeding of the Soil Conservation Service grass nursery work.

Maximum temperature, 82°; minimum, 28°; precipitation, 0.51 inch.

NORTH PLATTE:

Near freezing temperatures were recorded in this section of the state Monday night. Killing frosts were reported from the panhandle counties. No rain was recorded during the week, and little more than a trace has been recorded since the third week in August. The sorghums are drying up, and are being harvested earlier than usual this year. During the week, all of the fallow and stubble plots were rod-weeded and the plots of Early Kalo were harvested and shocked. The potatoes were dug Saturday, and the total yields were as follows: after fallow 125 bushels; after corn 83 bushels; and after wheat 130 bushels. The potatoes were of good quality. The soil was moist only about 18 inches in the fallow plots this spring and this low supply of moisture accounts largely for the potatoes on the fallow plots yielding about the same as those after wheat.

Maximum temperature, 90°; minimum, 36°; precipitation, 0.00 inch.

AKRON:

A storm period beginning last Sunday brought rain over the region, but precipitation was very light at the station. This was followed Monday night by a minimum reading of 29 degrees. Weather then gradually warmed to record the 92 degrees maximum by the end of the week.

This frost did not completely kill cucumber vines, and only touched the sorghum leaves on the station. It was reported heavier in a few places and sorghums were hurriedly harvested for feed. Sorghums very generally require another ten days to two weeks to fully mature. The greatest damage expected from this frost is to the germinating ability of the sorghum and corn seed. This is the earliest comparatively heavy frost in the 34 years' history of the station. A reading of 31 was recorded September 8 in the fall of 1929. The frost this year cut out the frost free period to 138 days.

Corn was harvested from the nursery and cereal variety ground, the cornland was made ready and the winter wheat varieties were planted Friday. Rotation winter wheat plots were finally made ready, and planting will be done Monday. Prompt emergence is not expected on land that grew a crop this past season. The pulling of ripe beans, and the removal of bags from sorghum heads in the nursery were other jobs attended to.

Maximum temperature, 92°; minimum, 29°; precipitation, 0.29 inch.

COLBY:

This has been a dry windy week with a wide range in temperature. Tuesday morning the temperature dropped to 34 from a maximum of 87 on the afternoon before. A heavy white frost covered everything. On

windshields where the autos stood out there was a heavy coating of ice and frost in many cases. No damage was done to vegetation, however. It was cold all day Tuesday, but has been getting warmer every day since.

Midsummer temperatures have prevailed the last three days and high winds have blown day and night. Summer fallow fields which have not been worked since the last rain have been blowing intermittently. Wheat seeding has been in progress and is nearing completion on many farms. The earlier seeded wheat is coming up to good stands in most cases.

The corn and sorghums are drying considerably, except in fields unusually well supplied with moisture. All crops need a good rain and about a month of frost free weather. The corn is just starting to dent, and most of the sorghums have not started to color.

Maximum temperature, 92°; minimum, 34°; precipitation, Trace.

HAYS:

The week started with calm and mild temperatures, following a light shower, but today it is ending with the second day of continuous heavy south wind carrying considerable dust.

The condition prevailing for the last two days is reducing the possibilities for maximum yields of the sorghum crops which have now used most of the easily available moisture in the soil. The dry weather and wind are hastening maturity too rapidly. In the adjoining counties south and southwest the crops are burned and are suffering more than in this vicinity.

Reports from counties east, north and northwest indicate that crops are in much better condition due to recent local rains some of which have been too heavy and caused some damage by washing.

Tillage operations and collection of soil samples constituted most of the work on the project during the week.

The annual sorghum and grass field day program was held September 12 with about 100 visitors present.

Maximum temperature, 100°; minimum, 44°; precipitation, 0.19 inch.

TUCUMCARI:

Crops are showing the effects of dry weather the past six weeks, after making vigorous, shallow-rooted growth. Fair yields of sorghums and other crops are assured, but immediate rain would improve yield prospects.

Work of the past week included harvesting cowpeas, beans and broomcorn, removing bags from bagged sorghum heads and making sorghum sucker counts.

Visitors included F. E. Keating of the Big Spring station, and some local agency heads of the Government.

Maximum temperature, 95°; minimum, 43°

BIG SPRING:

Rains on three days during the past week totaling 1.25 inches slowed up field work considerably. There was enough rain to make the fields too wet for much binder work. A few plots of kafir were cut as were some of the forage sorghum varieties. Broomcorn in the MC series and some varieties were pulled and seeded. Good yields of good quality brush are being obtained. Bagged heads of some of the sorghum varieties were gathered for seed.

Cotton picking in this area is getting under way; about 400 bales have been ginned up to date. Station cotton is beginning to open and the first picking of the varieties will have to be made soon.

Dr. John H. Martin visited the Station September 13.

Maximum temperature, 97°; minimum, 54°; precipitation, 1.25 inches.

LAWTON:

Resumption of sorghum harvest on the 8th was stopped by 3.27 inches of rain on that date. This was the largest rain recorded since September 7, 1937. Subsequent temperatures dropped to a minimum of 49 on the 9th and cool cloudy weather has permitted little drying of the soil.

Forage sorghums and some of the darso strains, all of which appear to be very poorly anchored in the soil this year, are lodged nearly 100 per cent. Atlas sorgo apparently has no lodging resistance this year. Sixteen plots of forage sorghums, too badly tangled to cut with a binder, were cut by hand and shocked on the 13th. Binder operations will be resumed at the first opportunity.

Open cotton was badly stained by the heavy rain and picking cannot start until dryer weather prevails.

MANDAN:

Arboriculture: Soil samples to a depth of 10 feet have been taken in the new series of experimental blocks. Moisture appears favorable in all foot sections. A noticeable change was found in the main windbreak where a few trees were transplanted, dry soil being encountered at 14 inches. The precipitation the beginning of the week will greatly benefit all types of tree growth and enable trees to go into the winter with a fair supply of moisture.

Horticulture: Picking late varieties of fruits continued throughout the week. Hibirnal apples yielded fair crops as did Virginia and Strawberry crabs. Late varieties of plums are yielding good crops. Ember, Goldenrod and Monitor all yielded good crops of good quality fruit. The variety, Ember, is perhaps the best of the late plums. A few late selections of apples and plums were budded during the week, but the bark did not slip good so stands will probably be poor.

Agronomy: Fall plowing, interrupted a couple of days by heavy rain, was finished the middle of the week. The soil in the main field is now moist from 18 to 20 inches, mostly from the rains of the week. This is the best September soil moisture since 1931. Early fall

seedings of grass were made in several of the grass rotations in the south field, most of these being in the deferred grass rotations, in wheat and corn stubble. Grass species seeded were brome, crested wheatgrass, western wheatgrass, Russian wild-rye, slender wheatgrass and Canadian wild-rye. With the excellent soil moisture conditions good stands should result.

A rate of seeding test with Russian wild-rye was seeded in barley stubble on the 11th. A light frost occurred on the morning of the 9th. The only observed effect was slight damage to pumpkin leaves.

Maximum temperature, 80°; minimum, 34°; precipitation, 2.27 inches.

BELLE FOURCHE:

The weather was unsettled and comparatively cool most of the period. A number of light showers were received and substantial rains, totaling, 0.65 inch occurred on September 6. An additional 0.18 inch was recorded on September 7 and 8. The total precipitation for September to date, 1.17 inches, is nearly equal to the 33-year average for the month.

Owing to the favorable moisture conditions, grass, alfalfa, and sweetclover are making an exceptionally vigorous fall growth. Corn is maturing very slowly and the crop on most of the dry-land plots will not be ripe for at least another week or 10 days.

Field work included harvesting sorgo, preparing seed beds for fall grain.

Maximum temperature, 88°; minimum, 36°; precipitation, 1.17 inches.

GARDEN CITY:

No measurable amount of moisture fell during the week, in fact, only .01 inch has fallen since August 23. Considerable wind with rather warm temperatures prevailed during the latter half of the week. This dried out the soil rapidly and many of the continuous sorghum plots and a few on poorer methods of fallow are burning. However, they are far enough along that the damage will not be too severe. Jack Frost gave the sorghums a little scare Monday night when the temperature dropped to 37°, which is the lowest on record for this early in the fall. Freezing was reported farther west in the state.

Moisture is needed badly for wheat that is already seeded and for that to be seeded. That seeded early for pasture is making slow growth.

Field work consisted of harvesting cowpeas for hay, mowing the second crop of Sudan and taking soil moisture samples.

Maximum temperature, 97°; minimum, 37°; precipitation, Trace.

WOODWARD:

Cool unsettled weather at the beginning of the week was succeeded by higher temperatures and strong southerly winds at the close. Rainfall totaling one inch assured ample surface moisture for the germination of early planted small grains.

Cowpeas in the D.L.A. field and broomcorn in the Cereal and D.L.A. projects have been harvested, very good yields being obtained.

Wheat plots were cultivated to destroy volunteer growth and fallow areas duckfooted to roughen the surface after the recent rains. Leveling of listed ridges in the Cheyenne wheat increase seed field was also completed.

Various plantings of hybrid Chinese elm at this station were inspected by Dr. Curtis May, Senior Pathologist, Forest Service, Morristown, New Jersey, further crossing with Rock Elm being suggested in hopes of finding some individuals resistant to Dutch Elm disease. Seedlings from 12 of 18 elm hybrids are now being grown for later transplanting and observation. Another interesting group of seedlings from seed produced on a species of mulberry (Moris kagayamae) obtained through P.E.I. in 1930 have resulted in a number of variant types which will be studied further.

The S.C.S. nursery division is collecting considerable seed of sand bluestem (Andropogon hallii), switch grass (Panicum virgatum) and sand lovegrass (Eragrostis trichodes) from station plantings and nearby open range areas. Erection of the new seed storage barn is progressing rapidly.

Maximum temperature, 86°; minimum, 52°; precipitation, 1.00 inch.

DALHART:

A sudden drop in temperature during the week brought a minimum of 38°. Since this low was reached the temperatures have risen to normal for the time of the year.

Cowpeas which started to lose leaves rather quickly were harvested during the week. The A plots were plowed this week. Other work consisted of opening sacks on the bagged sorghum heads, grape harvesting, weed burning, and stalk and head counts for the rotation project.

Milos continue to drag along toward maturity. There cannot help but be many immature heads in this crop. A rather unusual occurrence is the large percentage of sidebranch heads in both milo and kafir.

Weeds, especially Russian thistle, are dying rather rapidly. Many weeds have apparently been shallow rooted and have made a luxuriant growth on the surface moisture. It has been over 3 weeks since any rain has been received in amount to be of value.

Maximum temperature, 93°; minimum, 38°; precipitation, .08 inch.

96

LIBRARY
RECEIVED
★ OCT 3 1941 ★
U. S. Department of Agriculture

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

GPO SE 2

Not for publication without
prior consent of this division

REPORT FOR THE WEEK ENDING SEPTEMBER 20, 1941

HAVRE:

Moist weather and partly cloudy skies, with relatively light wind movement, prevailed during the week. Precipitation totaling 2.88 inches, received thus far this month exceeds the September normal by 1.70 inches, with the promise of further rains over the weekend.

Fall plowing and land preparation for winter wheat and rye and also corn picking and stover cutting were completed. In the seedhouse, the remainder of the SCS material was threshed and weighed. Soil moisture samples also were taken in the tillage project in Field C.

All inbred ears were harvested in the corn nursery, the yield test was cut and the crosses were harvested. A slightly higher set of ears was obtained in the pedigreed inbreds, due, no doubt, to the timely irrigation water supplied from the campus irrigation system.

Alfalfa seed was harvested in the farm fields when conditions permitted and a beginning was made in harvesting a light crop of third cutting alfalfa. Fortunately, very little hay was down when the rains resumed on Thursday morning.

Maximum temperature, 78°; minimum, 38°; precipitation, 0.51 inch.

JUDITH BASIN:

The weather during most of the week permitted field work, however, rain on Friday again halted all combining, seeding, and tillage. A frost was recorded on the morning of the 16th. The last frost in the spring was on May 20 which makes the frost-free season total 119 days, the shortest for a number of years.

The fall tillage and seeding of the Cereal Crops and Diseases project were completed, except for the planting of the smut nursery, under ideal conditions.

The first grass seeding in the new forage observational project has been made, and the remaining plots are all staked preparatory for drilling.

To date the precipitation for September (2.86 inches) is more than double the normal for the month, and indications are that this will be the wettest September since 1909.

There is still some unharvested wheat in this area and the fall seeding is no more than half completed.

Maximum temperature, 79°; minimum, 32°; precipitation, 0.94 inch.

HUNTLEY:

A light shower early in the week followed by a drop in temperature to almost the frost mark retarded soil drying to some extent for a day or two. By midweek, however, the weather had cleared and some field work was possible. A light rain with trace of snow fell

again last night and a light drizzle is falling today. Following the previous shower, alfalfa and potatoes showed slight frost injury although freezing temperatures did not register at the weather station.

The rains of two weeks ago germinated a heavy crop of downy bromegrass seed on adjoining rangelands and the country now is almost as green as it is in May. Weeds and volunteer grain have also come up in plots and fields. Crested wheatgrass seedlings have volunteered thickly in alleys and roadways adjoining the grass plantings, and the old grass stands continue to make a good growth.

Maximum temperature 85°; minimum, 34°; precipitation, 0.09 inch.

DICKINSON:

Light showers with some precipitation on six days of the week held back threshing and field work. Threshing was possible in the district on only two days. In spite of all the rain this month, grain threshed this week showed very little damage.

Corn was run into the silo during the week. Yields were not much above average, but the high proportion of grain will make a silage of high feed value.

Most of the fall plowing on the rotations was completed. The soil contained plenty of water, so that an excellent job of plowing resulted.

Pastures and meadows continue to green up. Bromegrass and crested wheatgrass plots and fields now will provide excellent pasturage. The growth is comparable to that of last October when heavy rains induced an unusual amount of growth. Bulbous bluegrass has greened up unusually early, but other grasses are green now in contrast to the normal dormant stage when this grass starts growth.

Winter wheat and rye plots planted September 10 have excellent stands.

Maximum temperature, 90°; minimum, 39°; precipitation, 0.70 inch.

MANDAN:

Arboriculture: Dead wood was removed from part of the experimental blocks the first half of the week. Collection of Russian-olive seed has been in progress in the latter half. The seed is not quite ripe but is being rapidly destroyed by birds.

Hortioulture: Fruit picking was finished on September 19. Several late varieties of apples are to be stored in the rootcellar for a test of their keeping quality. Haralson looked best among the late varieties of apples. Wedge, Longfield and Red Wing also yielded well. Late varieties of plums yielded good crops. The late varieties Omaha, Emerald, Burwood, Winona and Sel. 77 are very much alike in both appearance and quality.

Agronomy: Winter rye seeded on the 11th in the rotation and tillage experiments showed a fine emergence on the 17th. Of the experimental grass seedlings made in the deferred grass rotations on the 12th, crested wheatgrass and Russian wild-rye showed about a 75% emergence, brome and slender wheatgrass just starting, and western wheatgrass and Canadian wild-rye none at all.

Unseasonably high temperatures occurred two days of the week with maxima in the nineties.

A field seminar was held on the 18th for about 15 field men of the SCS. A field trip over the agronomy plots was interspersed with informal discussions of agronomic problems.

Maximum temperature, 94°; minimum, 42°; precipitation, Trace.

COOPERATIVE GRAZING EXPERIMENT:

Steers in the little reserve pasture were transferred back to the Fairway crested wheatgrass and mixed grass pastures, from which they were removed earlier when a heavy hay crop was cut from these pastures. The recent rains have produced a heavy aftermath on these pastures. One of the crested wheatgrass pastures, broken up during the middle of the summer, was worked down and seeded to Russian wild-rye last week. A drill with subsurface packer and press-wheel attachments was used. A good emergence was observed at the end of this week.

A group of about 25 SCS field men visited the grazing experiment on the 20th.

ARCHER:

Clear, mild, dry weather prevailed throughout the week. Potato and bean vines are turning brown and prairie grasses are curing. Winter cereal seedings have emerged with good stands except on the plots plowed this fall.

Station activities consisted of threshing and cutting the corn crop. All corn has been cut, and threshing,with the exception of the beans, is practically completed.

Maximum temperature, 83°; minimum, 36°; precipitation, .09 inch.

NORTH PLATTE:

No rain was recorded during the week, and little more than a trace of precipitation has been recorded since August 25. There were strong southerly winds the last four days of the week, and the average velocity for Saturday was over 20 miles per hour. The bulk fields of Early kalo were harvested during the week with the corn binder and wagon box header. No wheat has been seeded in the plots. There is not enough moisture in the plots that were in crop to sprout wheat. The winter wheat nursery was seeded on the 13th and has emerged with a good stand.

Dr. Jesse Livingston and Robert Cushing of the College of Agriculture spent Thursday inspecting the sorghum project. Counts were made to determine the amount of charcoal disease prevalent in several of the rotation plots. In a few plots as much as 80 percent of the plants were infected.

Maximum temperature 92°; minimum, 46°; precipitation, 0.

AKRON:

The week passed without event other than the setting of right-of way fires by nearly every freight train.

Seeding winter wheat, harvesting beans and grading and making bushel-weight tests of the spring wheat varieties occupied the station force. The rotation plots were seeded Tuesday, the Crop-Weather study Thursday and the uniformly cropped plots Friday and Saturday. Winter wheat varieties seeded last week are well emerged on fallow by this week end.

Carpenter work on the cattle feeding pens and operation of a tractor and fresno on the trench silo started during the week. Ronald Tom, Herbert Osland, and State Board Member, Charles Little, were here to start this work. D. W. Robertson came Thursday to secure soil moisture samples on the Crop-Weather studies ground.

Maximum temperature, 91°; minimum, 45°; precipitation, Trace.

COLBY:

This week has been dry and mostly hot and windy. Rain has threatened nearly every day, but none has fallen. Fairly high winds have blown almost constantly day and night. This, coupled with summer temperatures, is causing everything to show signs of drying up. Ground loosened with a drill or other tillage implement dried out rapidly. Smooth, bare fields, of which there are very few now, have blown some nearly every day.

Most of the corn and sorghums are very late this year and need drying weather to ripen, but should have a lot more moisture than is in the soil now. Corn seems to be maturing more normally than the sorghums. Most of the sorghums are barely in the milk stage, but the plants are drying up and the heads are coloring prematurely in most cases. In many fields, however, a rain would still help considerably.

Wheat seeding is about at a standstill. The early planted fields are generally up to good stands, but more recent seedings are not coming very well. The seed bed dries out even though there is an abundance of moisture below. Many farmers are waiting for a rain to finish seeding. Everything is ready for seeding on the station, but we have held off so far for either a rain or more favorable weather.

Maximum temperature, 94°; minimum, 51°; precipitation, Trace.

HAYS:

It has been partly cloudy, warm and windy all week except for a shower one day and one foggy morning.

Corn reported badly damaged earlier in the season by wind has remained green up to the present time. The grain is now mature, and the crop is being harvested with a binder today. The yield will be very light.

Pink kafir is enduring the dry weather very well except on ground that received no preparation previous to seeding. The earliest heads, or about 20 percent of the crop are mature.

Early kalo, which was substituted for milo after three plantings of the latter failed to produce a stand, is now fully headed and in bloom.

Wheatland milo and Blackhull kafir bid fair for excellent yields. Pink kafir on most of the plots may produce even higher yields if frost does not interfere.

Late disking and plowing for wheat was done September 15. These plots were covered with volunteer wheat and foxtail, the latter being 12 to 15 inches high. The surface soil on these plots contains more moisture in the first two feet than usual. The soil on sorgo, Sudan grass and buffalo grass plots is very much drier than the soil on these wheat-stubble plots.

No winter wheat has been seeded on the Experiment Station except on a few date-seeding experimental plots.

Maximum temperature, 94°; minimum, 64°; precipitation, 0.25 inch.

GARDEN CITY:

The wind subsided somewhat the first part of the week, but was blowing again at a good rate the latter part. Temperatures ranged in the high eighties and lower nineties, and these with high winds dried out the soil considerably. Sorghums continue to dry and burn except for the lister planted plots. However, they are nearly ripe and harvest will start soon on the plots. Binding has already started on the general fields.

Wheat planting in this section has slowed down considerably, as the farmers are waiting for moisture. However, there are seedbeds on the station which were well packed before the drought set in which have moisture near the surface and wheat could still be put down into moist soil. Wheat drilling on the plots will be delayed for a while in hopes that rain will come soon. Only 0.01 inch of rain has been received since August 23.

J. H. Martin, Washington, D.C.; L. P. Reitz, E. G. Heyne, J. C. Hide, and Tom Weldon, Kansas State College, were station visitors.

Maximum temperature, 93°; minimum, 51°; precipitation, Trace.

TUCUMCARI:

The week has been generally cloudy with moderate temperatures. A rain of 1.62 inches the middle of the week was of great aid to sorghums, corn and other row crops with the exception of broomcorn.

Farmers are having great difficulty in obtaining help to harvest the very heavy, unusually tall broomcorn brush; and delay in harvest, combined with the recent rain, may result in much of the crop being damaged. W. P. A. projects in this part of the State have been reduced to skeleton forces or postponed, and every effort is being made to induce workers to accept farm jobs. Broomcorn pullers are being paid from $2.50 to $3.00 per day, with some farmers offering board and some others transporting workers to and from the job each day.

Cowpeas and beans were harvested, wheat and rye seeded in plots and orchard and sucker counts on sorghum plots completed.

Maximum temperature, 88°; minimum, 50°; precipitation, 1.64 inches.

DALHART:

Work during the week has included the soil sampling of the wheat and milo plots, harvesting broomcorn, picking grapes and stalk and head counts for the sorghum plots.

In the soil sampling, it is now plainly evident that milo is using moisture from the first 6 feet. The fallow plots for both wheat and milo are filled with moisture in the 6-foot sampling zone. There is insufficient moisture in the surface 4 inches to justify planting either wheat or rye. These crops will be planted as soon as rain is received.

Broomcorn yields on cropped land are going to be as large apparently as in any previous year. The quality of the brush is also above average. The plots on fallow, due to location, were adversely affected by accumulated water when the plants were young and the crop will be smaller than on the cropped land plots and the quality will be poorer.

The grape yields are light but the quality is very good.

A rather striking fact is the relatively high number of side-branch heads on many of the sorghum plots. Another obvious occurrence is the effect of nitrates upon earliness and plant vigor this year.

Maximum temperature, 88°; minimum, 48°; precipitation, 0.09 inch.

BIG SPRING:

Weather conditions have been favorable for field work during the entire week. This warm, dry weather has caused cotton to open rapidly and milo to mature fast. The immediate problem of the farmers in this area is labor for picking cotton and heading milo. Cotton has opened rapidly and the usual influx of pickers from South Texas has not yet arrived. Picking prices started at $1.00 per hundred, but are due to go up to $1.25 as the local pickers are starting to ask it now.

Station work has consisted of cutting the second crop of Sudan grass from the plots and an increase field, and also increase Hegari. Picking cotton in the varieties was started this week; weights of the first picking indicate that good yields will be obtained. Other work consisted of gathering bagged sorghum heads, plowing and listing wheat plots and cultivating fallows.

Maximum temperature, 92°; minimum, 64°; precipitation, 0.

LAWTON:

A week of moderate temperatures, ranging in the eighties and moderate wind velocity was favorable to maturity of sorghums and to cotton that still carries a good picking of open bolls. Heavy dews occurred each night, and one shower produced 0.02 inch precipitation.

Sorghum harvest was completed and plots that were headed several weeks ago were threshed. Most of the sorghums are hard to thresh, and the grain is light and chaffy. The normal development of seed was injured by the Rice stinkbug, Salubea Pugnax, Fabr.

One late planting of cotton carries a very heavy infestation of boll weevil.

WOODWARD:

Mostly fair weather with considerable wind movement and temperatures 5° above the seasonal normal prevailed. Scattered thunderstorms earlier in the week resulted in 0.30 inch of precipitation at the station.

Field-cured acre yields of corn fodder ranged from 1,000 to 4,310 pounds. The first picking of cotton in rotation 124 produced at the rate of 330 pounds per acre. Kafir and milo are maturing rapidly in the DLA plots with harvesting now in progress in the sorghum breeding project. Charcoal disease and some lodging due to a "stalk borer" of some kind have been observed. The September 15 rate-and-date of seeding wheat and barley emerged on the 19th, rapid germination occurring under the influence of warm soil and ample surface moisture.

Roadways in the experimental project have been drilled to wheat and also other areas including vineyards and shelterbelts for the purpose of preventing wind erosion during the coming winter months. This season's growth of native grass and shinnery oak were mowed in the Spring Creek arboretum. Native cedar transplant stock was moved into the greenhouse for grafting later on. Well drilling at the range unit is progressing with six of the seven new wells completed. Wind mills have been erected and steel watering tanks installed at five of these sites.

Maximum temperature, 94°; minimum, 65°; precipitation, 0.30 inch.